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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,184	07/06/2001	Kazuaki Tashiro	35.C15537	2691

5514 7590 06/09/2003

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30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

MORAN, TIMOTHY J

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 06/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/899,184

Applicant(s)

TASHIRO ET AL.

Examiner

Timothy J. Moran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-6,10-12,15,16,22-30,39,40,44 and 46-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,4-6,10-12,15,16,22-30,39,40,44 and 46-67 is/are allowed.
- 6) ☒ Claim(s) 68-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 19, 2003 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 68 is rejected under 35 U.S.C. 102(b) as being anticipated by Fossum, PCT Application WO 99/31874. Fossum describes an image sensing apparatus comprising a plurality of image pickup elements (fig. 1), wherein each image pickup element includes a scan circuit (fig. 3., drivers 300 and 302, page 4, lines 12-26) which supplies a readout pulse (implied by use of the term "driver" in page 4, lines 12-26) and which is arranged between two photoelectric conversion units, wherein said scan circuit includes a shift register (page 4, lines 14-16).

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 69-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fossum as applied to claim 68 above, and further in view of Schick, U. S. Patent No. 5,912,942. Regarding claim 69, Fossum does not teach the use of the apparatus to detect an X-ray image. However, Schick teaches that CMOS image sensors are useful in detecting X-ray images (see abstract). Therefore it would have been obvious to one of ordinary skill in the art to use the apparatus of Fossum in combination with other elements for the advantage of detecting an X-ray image.

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Regarding claim 70, Schick teaches (col. 10, lines 35-65) the use of a signal processing unit (CPU 61), a recording circuit (box 60), a display circuit (monitor 62), and a radiation source (col. 6, lines 1-5). Therefore it would have been obvious to one of ordinary skill in the art to use such elements with the apparatus of Fossum.

Allowable Subject Matter

Claims 1, 4-6, 10-12, 15-16, 22-30, 39-40, 44, and 46-67 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: Claims 1, 51, and 52 include the limitations that each of a plurality of image pickup elements comprises a scan circuit which is arranged between photoelectric conversion units in a single image pickup element. Claim 16 includes the limitations that each of a plurality of image pickup elements comprises transfer circuits which are arranged between photoelectric conversion units in a single image pickup element. Claim 27 includes the limitations that each of a plurality of image pickup elements comprises a protection circuit which is arranged between photoelectric conversion units in a single image pickup element. Claim 46 includes limitations describing specific locations of external terminals in neighboring regions and a wiring line in an imaging apparatus. Claims 53 and 54 include the limitations that each of a plurality of image pickup elements comprises an external terminal which is arranged between photoelectric conversion units in a single image pickup element. Claim 66 includes the limitations that each of a plurality of image pickup elements

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comprises vertical and horizontal scanning circuits arranged between photoelectric conversion units.

Conclusion

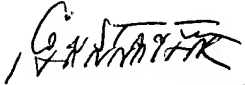
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Moran whose telephone number is 703-305-0849. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 703-308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

T.M.

TM
June 3, 2003


CONSTANTINE HANNAHER
PRIMARY EXAMINER
GROUP ART UNIT 2878